STB News

August/September 2004

Lynne Richards, left, and Johnny Herrera, facilitators from the associate directorate for administration (ADA), discuss features in an STB activity-mapping chart.

For the Record

Non-Management Volunteers Join Planning Team

As fiscal year 2004 came to a close, the Science and Technology Base Programs (STB) Strategic Planning Team had held more than 30 hours of meetings in three months and was pushing hard to complete a list of high-level activities in the division and begin work on an organizational plan.

Don Rej, acting leader of STB, had held an all-hands meeting on August 31 to brief employees on the progress made by the team to that point.

He presented a vision that said, "STB catalyzes Los Alamos National Laboratory's preeminence as *the* global leader in science and technology." He followed up with a mission statement that said, "STB integrates the institutional investment in people, knowledge, and innovation to secure the future scientific and technical preeminence of the Laboratory."

And he presented five goals that said: "Secure Los Alamos National Laboratory's science and technology preeminence through corporate investment. Ensure a preeminent, innovative, and agile workforce. Pioneer quality management systems for managing science. Establish the intellectual center for exchanging ideas and promoting science at Los Alamos." And, "Build and sustain a high-performance, customer-focused STB team."

He went into detail on the objectives under each of these goals, and then he divided those attending into groups to discuss the plan and come back with comments.

It was during the reports from these groups that a key comment surfaced. One group said, "We want to see more input from the worker bees as this plan progresses."

Rej took the comment seriously and called for volunteers. By the end of the year, four nonmanagement employees had stepped forward to attend at least some of the meetings: Reynaldo Morales and Debbie Wilke of STB-University Relations; Rick Alexander and Carole Rutten of STB-Education Program Office; and Evelyn Kelley of STB-Research Library. (They joined those who had attended many of the meetings since the process began in July: Rej, Nikki Cooper, Terry Lowe, Rick Luce, Debbie Martinez, Melissa Robinson, Jackie Stack, David Watkins, and Mary Anne With.)

Three facilitators from the associate directorate for administration (ADA)—Lynne Richards, Johnny Herrera, and Donnamaria Vigil-King—were assisting the team members, leading them through a series of discussions and exercises designed to give them a clear view of where STB should be going, its major high-level activities, and the work that binds various groups together.

The team had not established a firm date by which it expected to complete its work, but Rej told team members on September 24 that both he and the employees had a sense of urgency about finishing the plan and taking it to the Senior Executive Team as soon as possible.

Messages Praise STB's LA Science

Los Alamos Science has readers all over the world. People frequently send e-mail asking for copies and commenting on the publication. Sometimes, the messages are almost love letters.

Joy Baker, administrative assistant in LA Science, has hundreds of these letters on her computer, and the collection never stops growing.

The recent issue marking the 60th anniversary of Los Alamos National Laboratory (LANL, the Laboratory) drew many comments.

Mary Laders-Haller, with the National Nuclear Security Administration/Department of Energy, wrote: "One of my associates … recently received a copy of 'Los Alamos Science-Celebrating 60 Years,' Number 28, 2003. This is a wonderful publication and is full of information that can be helpful to others here in my department. May we please receive three more copies?…."

The magazine is popular with educators. One representative e-mail came from Bruce Freeman, a research professor in the Nuclear Engineering Department at Texas A&M University. He wrote: "May I request a copy of Los Alamos Science Number 28, 'Celebrating 60 Years'? I was an employee at LANL from 1974 to 1995 and am still affiliated with the Lab. From comments of friends, I may have even been involved with more than a few of the projects mentioned in this issue. In any event, it may prove to be a valuable resource for my students here at Texas A&M University…."

Preston J. MacDougall, associate professor in the Department of Chemistry at Middle Tennessee State University, wrote that he had heard of the upcoming 60th anniversary issue. He said, "I teach a small class of 20 honors chemistry students, and they have multiple creative writing assignments that must be based on some aspect of chemistry that could have a broad appeal. I make available numerous and diverse reading materials, such as recent issues of LA Science. The next issue would certainly grab their attention and would be appreciated by all…."

Some people clearly respect LA Science and are interested in seeing how it handles certain topics and in sharing it with others.

Greg Swift, who won an E.O. Lawrence Award this year, wrote: "Congratulations on the 60th anniversary issue. An excellent cross-sectional snapshot of the Lab. I gave my copy to the president of the NM Conference of Churches (…a LONG story!…), and I have a request for copies from someone in state government and someone in an enviro nonprofit organization (…an even LONGER story…). Do you have two spare copies you can send me?…."

Carlyle B. Storm, director of Gordon Research Conferences in West Kingston, R.I., wrote: "I saw in the most recent LANL NewsLetter that you have published a CD and hard copy of 'Celebrating 60 Years.' I would appreciate it if you could send a copy of the CD and the hard copy. In addition to my interest in LANL as a retired staff member, we are developing a 75-year history for GRC, and I would like to see how the text, CD, and web version all fit together…."

(Please see READERS, page 3.)

Leah Sandoval (above), a student employee who had worked in Science and Technology Base Programs for about four years, moved to a new job in August. STB gave her a going away party (below) that featured great food and many friends. She is now a student employee in records management for the Health, Safety, and Radiation Protection Division (HSR-7). She said, "I'm having a good time. I enjoy the ladies here, but I miss all the people at Canyon."

READERS (Cont'd from p. 2)

Tom Kennan of Los Alamos wrote: "Thanks for your courtesy in my recent phone call. I would like to receive a hard copy of the 'Celebrating 60 Years' of Los Alamos Science. As a retiree of 35+ years of service, it's great to see what's going on! Keep up the good work!"

And Anne Van Arsdall of Sandia National Laboratories wrote: "Your newest issue on 60 years at LANL just arrived, and it is outstanding! What a wonderful job…."

Sometimes, people want certain issues of the magazine to help them explain their work to others. The 1997 issue on the neutrino was very popular.

In 1998, John Beacom of Caltech wrote to LA Science, asking for a copy. He said: "…I am a postdoc at Caltech, working in neutrino physics. Part of my interest in obtaining a copy is that these articles are very good sources of material for explaining my work to the general public…."

Professors loved that issue. Many wrote requesting copies.

Robert W. Kraemer, a professor of physics at Carnegie Mellon University, wrote: "I would like very much to have a copy of 'Celebrating the Neutrino,' Number 25 of Los Alamos Science. I realize it is probably on the web, but this is a really nice work to use in undergraduate teaching—especially a course I will be teaching next year in modern physics. I am happy to cover any cost involved in sending it to me. Finally, please add me to your mailing list for this publication."

Edwin L. Woollett, a professor in the Department of Physics and Astronomy at California State University at Long Beach, Calif., wrote: "I am teaching an upper division/first year grad introduction to particle physics at a semi-quantitative level (i.e., using Gordon Kane's text: Modern Elementary Particle Physics). One of my faculty colleagues ran across your issue number 25, 'Celebrating the Neutrino," and has shown it to me. I wonder if it would be possible for you to send me a copy of this issue? Several of the articles look perfect for an introductory course."

Steve Elliott in the Department of Physics at the University of Washington wrote: "…I am contacting you to request about 10 copies of the recent LANL Science. I am teaching a particle physics course, and much of the material in the publication is pertinent."

Frank Calaprice of the Physics Department at Princeton University wrote: "I had the pleasure to see a copy of your collection of articles on neutrinos in LA Science and found it to be very well done. Our group is working on a solar neutrino experiment called Borexino, and I think it would be very useful to have extra copies of the publication, especially for students. It is a very good overview of the field of neutrino physics and the historical perspective is quite unique and informative. At the moment, I have loaned my copy of the booklet to an undergraduate senior who is in the process of writing her senior thesis. Others are interested to study it, and it would be very helpful if you could send us more copies. Our secretary … has requested 12 copies, which I hope you can send to us soon. … You have done a great service to the community with this collection of articles."

And Professor Michael Shaevitz of Columbia University wrote: "Geoff Mills has told me that I may be able to obtain a dozen copies of the LA Science book on neutrinos. I would use these copies for my graduate Particle Physics course at Columbia University next fall. The book has a good mix of experimental technique and theoretical discussion that fits the way I like to teach the course…."

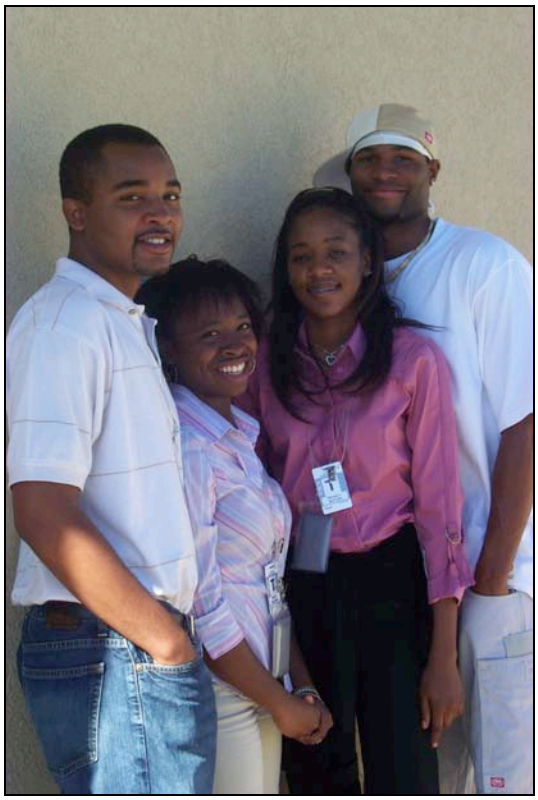
Not all the letter writers were professors.

One student wrote: "I just read 'Celebrating the Neutrino," #25 of Los Alamos Science, and I would like to order a copy for myself. My name is Phillip Geissbuhler, and I am a graduate student working on the SNO project under Hamish Robertson at the University of Washington. I really enjoyed this book; great writing!…."

Todd Hansen of Lawrence Berkeley National Laboratory wrote: "I have been impressed with your Los Alamos Science and was wondering if 1) I could get a copy of your neutrino issue (No. 25, 1997), and 2) be put on the mailing list for future issues…."

And, in 2003, Stevie Strottman, former chief of staff in STB, passed on a request for a copy of the issue on quantum information from John Orrell, a student at the University of Washington, who complimented the neutrino issue in passing. Strottman said: "Can you please send out the Quantum issue (or a couple) to the young man below? It was really a pleasure taking the neutrino issue with me to the University of Washington. You can be very proud to work with the LA Science team. Everyone just raved about how great LA Science issues are!"

Perhaps the greatest compliment came recently when LA Science found out that its issue on plutonium had been translated into Russian—captions and all. Former Laboratory Director Sig Hecker obtained a copy during a recent trip to Russia and brought it back for the enjoyment of the staff. The entire LA Science staff gathered around to look with amazement and delight at a book that looked just like one of theirs—until you tried to read it.



Left to right: Romell Smith, Rene A. Williams, Dionne L. Butler, and Calvin Spellmon.

Four Dillard Students Expected Challenging Scientific Work…

But High Elevation and Low Humidity Were a Shock

Editor's Note: As the summer ended, many student interns left to return to universities, taking home with them a season of unusual experiences. The students from Dillard University were the first to come to Los Alamos from their New Orleans campus. They said they found Los Alamos a tough environment—but not for the reasons you might imagine. And they hope to come back.

Talk about an alien environment!

Four young science students from Dillard University spent the summer of 2004 working in New Mexico in the first educational exchange between the New Orleans, Louisiana, liberal arts institution and Los Alamos National Laboratory, one of the nation's major scientific sites.

The differences they encountered were not a complete surprise. It was predictable that life in Los Alamos, New Mexico, a small, quiet, scientist-dominated, family-oriented, mountain community of 18,000, would be very different from life in New Orleans ("the Big Easy"), a city of about half a million people that is famous for Mardi Gras, feisty food, and fantastic music.

But they never expected to encounter altitude so high and humidity so low that they were exhausted and almost sick for days on end….

Dillard is a private, historically black institution of about 2,300 students. Its website says the university "has as its purpose the development of graduates who are broadly educated, culturally aware, concerned with improving the human condition and able to meet the competitive demands of a global and technologically advanced society."

The four students from Dillard who worked at the Laboratory, all in their early 20s, are: Rene A. Williams of Garyville, Louisiana, a senior majoring in computer science; Dionne L. Butler of New Orleans, another senior in computer science; Romell Smith of Garyville, a senior majoring in biology; and Calvin Spellmon of Houston, Texas, also a senior in biology.

Smith and Spellmon said they found out about the internship programs at the Laboratory through a Dillard professor of biology, Duane Johnson. Butler first found out about the opportunities in Los Alamos from one of her professors, Azubike Okpalez, who is the chairman of Dillard's computer science department. Williams found out about the Laboratory through Butler.

None of the students had ever been to New Mexico before. They arrived in Los Alamos on May 24 and went to work on May 26. Almost immediately, they ran into physical problems.

Spellmon, an athlete, never lacked for something to do. He coached Little League in Los Alamos and played in two leagues in Santa Fe and Pojoaque—but first, he had to get used to the altitude. New Orleans is below sea level. Los Alamos is at 7,500 feet. Spellmon said he was astonished at how weak he felt initially. It took him three weeks to adjust. He experienced nosebleeds, headaches, and extremely dry skin.

Smith, Spellmon's roommate, recalled, "I'd never in my life seen 8% humidity!"

Sandra Landry of the Education Program Office eased their discomfort by providing Spellmon and Smith with a humidifier—but there were other problems as well.

(Please see STUDENTS, page 5.)

Martinez moves to RRES, Shawn Joins Postdoc Office

Rita Shawn joined the Postdoctoral Programs Office August 30 as a computer specialist.

Shawn has been with the Laboratory since October 2003. Before moving to Science and Technology Base Programs, she worked in the Chief Financial Officer Division (CFO-1).

Her background includes a bachelor's degree in business administration from the University of New Mexico in Albuquerque, and 15 years as a computer specialist at Blue Cross and Blue Shield in Albuquerque.

She has lived in Jemez Springs for two years. Her husband, Kerry, is an electrician for KSL. She has two grown daughters, who live in Edgewood and Rio Rancho, two grandsons, one granddaughter, and another granddaughter on the way.

Shawn replaced Angela Martinez, who had worked for STB for four and a half years, first as an employee in the Education Program Office, and then as a worker in the Postdoctoral Programs Office. Martinez moved to the Risk Reduction and Environmental Stewardship (RRES) Division Office, where she is now supervising a staff of 21 administrative assistants.

Asked if she is enjoying her work, Martinez said, "Yes, so far." She sees her new job as an opportunity to grow and advance—but she said she misses the people in STB.

The Postdoctoral Programs Office held a good-bye breakfast buffet for Martinez that drew a large crowd.

Rita Shawn in her cubicle in the Postdoctoral Program Office.

Angela Martinez at a breakfast buffet in her honor.

STUDENTS **(Cont'd from p.5)**

They had never expected Los Alamos to be cold in July, but the community is in a mountain forest, not a desert. It is justly famous for its unpredictable weather.

Williams and Butler, like Spellmon and Smith, solved the tight local housing problem by rooming together, but they still found the cost of living far higher than in the Southeast.

Spellmon said he thought the local cost of food was "ridiculous" and drove to Wal-Mart in Española, about 30 miles away, to buy his groceries.

In addition to the adjustments related to life in a totally new environment, they had to deal with the Laboratory stand-down for security and safety, instituted July 16 when nearly simultaneous reports of two misplaced classified items and a laser injury to a student's eye prompted the halting of all work and a massive retraining exercise.

All four, however, said that they managed to accomplish a lot before the stand-down. They found the work environment rewarding. **(Please see STUDENTS, page 6.)**

STUDENTS (Cont'd from p.5)

Williams said, "I was working on a spyware project … I was checking for different signatures in the host and registry and file system (within the host) … I was also looking for different types of products to remove spyware." Essentially, she confirmed, she was looking for ways to check a computer system to make sure it had not been "hacked." She said she learned something new, and she found the work satisfying. She hopes to attend graduate school in computer science, and her new knowledge should be useful.

Butler, also bound for graduate school, said, "I had to work with web logs to detect patterns to see when spyware attacked the computer." She learned the BASH scripting language and was writing a script to extract the necessary information when the stand-down halted her work. The goal of her efforts was to help detect the website from which the spyware was downloaded. "It was interesting," she said. "We learned a lot about networks, and that's something not offered at Dillard."

Both young women worked in the Cyberdefenders internship program under the mentorship of Gina Fisk of the Advanced Computing Laboratory (CCS-1).

Smith worked in Spectroscopy, Imaging and Molecular Chemistry (B-4). He said his project involved viral invasion of cells. "We are trying to understand the mechanism used by viruses—particularly influenza—in how they invade," he said. By understanding the mechanism of such invasions of the body, scientists can come to understand ways to head off the disease. His work made use of fluorescence microscopy techniques for imaging and liposomes (bubbles of fat) for drug delivery.

Smith, who hopes to go on to graduate school at the Louisiana State University Dental School, said he came to the Laboratory with experience in cell cultures, but he learned new techniques with lasers and imaging during his time in Los Alamos.

Spellmon, a premedical student, did his internship in Molecular Microbiology and Immunology (B-1). His work involved "identifying binding proteins on the intracellular domains of different toll-like receptors (TLRs)." TLRs are the body's first line of defense in the autoimmune system. Spellmon said, "I was trying to find different binding proteins, triggering different antibody mechanisms within the body of the autoimmune system." He finished his work on TLR5, but the stand-down kept him from finishing his work on TLR4 and TLR2.

He is now in the process of applying to six medical schools. When he completes his education—in about seven more years—he hopes to specialize in pediatrics or obstetrics.

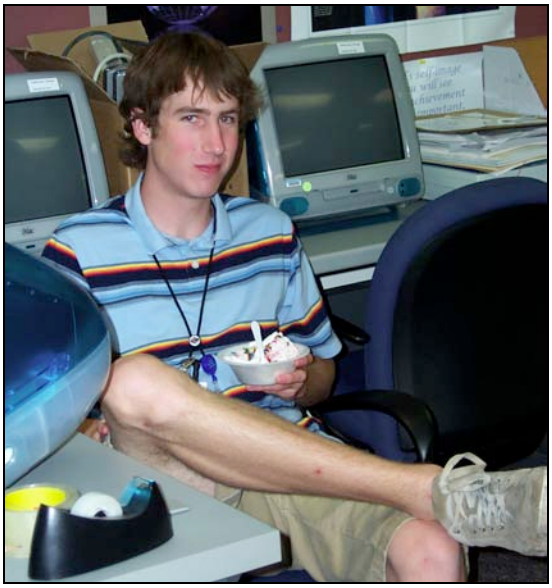
Despite the surprises they encountered in Los Alamos, all four students said that they hope to return to the Laboratory in the summer of 2005—and all four said they felt that other Dillard students would gain from coming to the Laboratory in the future.

Short Takes

Three people from Science and Technology Base Programs (STB) participated in a recent education initiative with the four accord pueblos. **Don Rej (acting leader of STB), and Sandra Landry, Rick Alexander, Carol Brown, and Lorenzo Gonzales (from the Education Program Office)** all attended the meeting in Pojoaque. The Los Alamos National Laboratory Government Relations Office sponsored the meeting, which drew representatives from several Laboratory groups and divisions. Participants received an update on the Math and Science Academy and a report on a new pilot project with Jemez Pueblo in the Valles Caldera.

Jeanette Gallegos in the STB Director's Office says her son, Jerry, is making a remarkable recovery from an all-terrain-vehicle accident that put him in the hospital in Albuquerque for several very hard weeks. She said all of the metal bars have been removed from his body, and he is walking on his own and attending school again—although he is still in physical therapy. She said she wished to thank everyone at STB "for all the friendly thoughts and support."

Howard Hanson, Lisa Harris, and Dana Benelli of Laboratory-Directed Research and Development were in San Diego this week for special training on the new database software behind Montecarlo 2. LDRD leader David Watkins said the trip was intended to "build on our expertise" by making workers more proficient in the new software.



After a summer of helping with computer support in STB, Ryan Uhlenbrock recently headed back to the University of California-Los Angeles for the fall semester.

(Please see SHORT TAKES, page 7.)

SHORT TAKES (Cont'd from p. 6)

Terry Lowe, leader of STB-University Relations, recently returned from the NATO Advanced Research Workshop in Ukraine, where he presented a paper.

On September 20 and 21, the **Research Library** hosted four visitors from the Max Planck Institutes in Germany. Those who came were: Ralf Schimmer, project manager for digital library services at Max Planck; Inga Overkamp, digital library specialist for the Heinz Nixdorf Center for Information Management at Max Planck; Harald Suckfuell, head of the information technology department at Max Planck; and Ben Bowman, director of central information at the Max Planck Institute for Biochemistry.

Josefina Salazar (above), a contingency worker employed in STB-Foreign Travel for two years and five months, has accepted a University of California position as an administrator specialist 2 with the International, Space and Response Division (ISR-1). She will be moving early in October.

Goodbye from STB News

In April 2003, I went to Allen Hartford, then leader of Science and Technology Base Programs (STB) with a proposal: I wanted to start a newsletter as a means to improve morale.

I promised him "short, upbeat stories featuring interesting activities of individuals."

I said the newsletter would be "a place to showcase the work and successes of STB groups."

I said that I would start with a very basic publication, but I added that the newsletter might, eventually, have color, photographs, and a place on the STB website.

Elena Perez of Human Resources taught me what I needed to know about Adobe Photoshop; Rick Alexander lent me the Education Program Office camera and shipped my photos from his archive to my computer; and Stephen Schultz began putting STB News on the web. The employees of STB took time to share a little of their lives with me—and they let me take their pictures. In a little less than 18 months, the "STB News" grew from a two-page, black-and-white publication, to an eight-page, full-color newsletter.

I tried to make the newsletter a bright spot in the information landscape—a publication that told positive, interesting stories about STB people while also keeping the staff up to date on changes and new faces in the organization.

I hope I succeeded in making you smile and helping you to know your colleagues better. I certainly enjoyed getting to know you.

But now, it's time to go. This is the 16th issue of STB News, and it will be the last—at least the last issue that I produce. I will be returning to Communication Arts and Services (IM-1 Central), my home group, on October 1.

I wish you well—all of you.

Charmian O. Schaller

Dana's Getting Married

Dana Benelli, acting administrative specialist in Laboratory-Directed Research and Development, is planning to marry Cale Jones of the Chief Financial Officer Division (CFO-3) in a formal ceremony on Saturday, October 9.

Dana is the daughter of another Laboratory employee who works in Canyon School—Michael Benelli of Human Resources-Training and Development.

STB's Annual Picnic

STB's annual "picnic on the green" was held September 23, 2004, on a beautiful fall day. Above, Carole Rutten (left) and Jeanette Gallegos prepare the feast (which also included barbecued steak and salmon). Above right, people line up for lunch. (Allen Hartford, Min Park, and Dennis Gill were among the visitors.) At right, employees visit in the sunshine. Below, left, Don Rej speaks of the contributions of recently retired employee Ed Hildebrand (at right). At bottom, right, Charmian Schaller reads a goodbye card from friends at STB.

Photos by Charmian Schaller